NEW SPECIES OF NORTH AMERICAN WEEVILS IN THE FAMILY CURCULIONIDÆ, SUBFAMILY BRACHYRHININÆ, IV

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Part 4, continued from Vol. XI, p. 96 Tribe Simoini (continued)

Genus **Anchitelus** Van Dyke, new genus

Short, robust, densely clothed with closely appressed scales and sparsely setose. Head stout, subcylindrical basally; eyes moderately convex, projecting but little beyond side margin; rostrum two-thirds width of head and somewhat shorter, separated above by a distinct dorsal impression, and widened apically; scrobes superior, widely open in front and convergent to middle of rostrum thence continued arcuately outwards almost to lower angle of eyes, the posterior portion also somewhat squamose; antennæ moderately robust, scape arcuate, gradually enlarged outwardly and reaching beyond front margin of prothorax, funicle 7-segmented, the first over twice as long as broad, more robust and slightly longer than second, segments 3-7 somewhat moniliform, club oval. Prothorax transverse, sides arcuate, postocular lobes and fimbriæ absent. Elytra elliptical, striæ well defined and with fine punctures. Legs stout, posterior tibiæ with two short fixed spurs at apices and cotyloid surface glabrous, third tarsal segment dilated and claws connate. First abdominal suture arcuate, second segment equal to the third and fourth combined.

Genotype: *Anchitelus alboviridis*, new species.

This genus is superficially somewhat like *Tricolepis* or perhaps more like *Peritelinus* because of its expanded rostrum, but it has two small fixed spurs to the hind tibiæ, lacking in that genus, therefore, would run closer to *Periteloides* according to Casey's key.[1] This last, however, not only does not resemble it but has short subapical scrobes whereas in *Anchitelus*, they are long, widely open in front much as in *Peritelinus* though continuing backwards and laterally almost to the lower angle of eye which is not the case in that genus. It should follow *Periteloides*.

Anchitelus alboviridis Van Dyke, new species

Rather small, compact, rufopiceous, with antennæ, tibiæ and tarsi rufous and body densely tesselated with small, light greenish-

[1] Anls. N. Y. Acad. Sci., Vol. IV (1888), p. 269.

white scales, feebly darker in two broad longitudinal lines on the pronotum and entire disk of elytra, and sparsely studded with short and fine setæ scattered over the pronotum and arranged in irregular rows on the elytral intervals. Head about two and a half times as long as broad, subcylindrical behind, and with parallel sides, eyes but feebly convex, not extending laterally beyond side margin of head; front flattened, with fine median groove extending forwards on the rostrum and with a few short, scattered setæ; rostrum broad, about as long as head, bulbous towards base and distinctly separated behind from the head by a transverse impression, rather broadly dilated at apex; scrobes superior in front, broadly open and convergent backwards, thence continued laterally in arched manner almost to lower margin of eye; antennæ moderately robust. Prothorax broadest at middle, base about one-fourth broader than apex, both transverse, disk rather finely, sparsely and irregularly punctured, a short seta, inclined forwards, arising from each puncture. Elytra two and three-fourths times as long as prothorax and about twice as broad, moderately convex, declivity arcuate but abrupt, striæ finely impressed and finely punctured, intervals feebly convex, the short, curved setæ inclined backwards. Beneath with scales somewhat more elongate than above and with numerous fine hairs mixed with them on the abdomen. Length, 4.75 mm., breadth, 2.25 mm.

Holotype (No. 4135, Mus. C.A.S., Ent.) and two paratypes collected near McKittrick, California, April 11, 1932, by E. P. Van Duzee.

Genus PERITELINUS Casey

KEY TO SPECIES

1. Little darker above than below, cinereous beneath; elytra oval, setæ moderately fine and generally uniseriately arranged on intervals; outer funicular segments somewhat transverse.....2
... Upper surface dark brown, undersurface much lighter, brown or cinereous; elytra elliptical, setæ coarser, closer and often irregularly biseriately placed on diskal intervals; outer funicular segments not transverse.....*erinaceus*
2. Pronotol punctures rather fine, setæ arising from them short but projecting well beyond the pits; disk of elytra as seen in profile somewhat flattened .....*variegatus*
... Pronotol punctures coarse, setæ arising from them squamiform and projecting little if at all from the pits; disk of elytra as seen in profile somewhat arcuate.....*oregonus*

Peritelinus erinaceus Van Dyke, new species

Somewhat elongate, brown above, pronotum often with a median

longitudinal line lighter, disk of elytra generally of a golden brown, sometimes clouded, and with an irregular dark brown margin; the setæ of entire upper surface of a more or less uniform type, short and club-like, inclined forward on the pronotum but erect on the head and elytra, and unicolorous with background. Head about a third longer than broad, slightly narrowed forwards, sides of rostrum continuous in same plane as sides of head, eyes moderately convex, front flattened, rostrum feebly sulcate in front, scrobes wide and pointing towards but not reaching eyes; scape arcuate, stout, not reaching front margin of prothorax, first funicular segment long, 2-7 gradually shorter, moniliform. Prothorax about a third broader than long, broadest at middle, apex narrower than base, sides moderately arcuate, disk somewhat flattened as viewed from side, rather finely, discretely punctured, the numerous short setæ arising from punctures. Elytra elliptical, two-sevenths longer than broad and two-fifths broader than prothorax, disk flattened from base to posterior third, declivity evenly rounded, striæ sharply impressed and finely, closely punctured, the punctures slightly elongate, intervals feebly convex, third, fourth and fifth often with two irregular rows of setæ, the rest generally with one. Underside with scales less imbricated than above and abdomen with a limited number of short and fine, much inclined hair. Legs robust and clothed with semierect squamose setæ as well as scales. Length, 5.75 mm., breadth, 2.5 mm.

Holotype (No. 4136, Mus. C.A.S., Ent.) and numerous designated paratypes from a series of over thirty specimens. The holotype was collected near Grass Valley, California, May 18, 1930, by E. P. Van Duzee. Other specimens are from Cordelia, Solano County; Pope Valley, Napa County; Sonora, Bear River and Columbia, Tuolumne County; Green Valley and Clarksville, El Dorado County, all from California and collected either by E. P. Van Duzee, H. H. Keifer or by me. The Green Valley specimens were beaten from Ceanothus shrubs and the Cordelia specimens from cherry by H. H. Keifer. They, however, feed on the most available shrubs within their territory.

This species with its numerous, short spines has a very characteristic appearance, quite suggestive of the larger *Encyllus vagans* Lec. It in general ranges throughout the Sierra foothills, the same territory where the more common *variegatus* is to be found.

Peritelinus oregonus Van Dyke, new species

Subglose, brown above, a median longitudinal line on the pro-

notum often lighter and the elytral disk generally clouded, often with an irregular transverse bar of lighter scales near the summit of the declivity, margined posteriorly with dark brown scales, the sides and undersides of a silvery white; the setæ only conspicuous on the elytra and there fine, short and sparse. Head about a third longer than broad and slightly cuneate as usual. Eyes rather small and but slightly convex, front flattened, rostrum feebly sulcate, a fine groove extending back on to the front, scrobes wide, less deep behind; scape arcuate, narrow basally, barely reaching front margin of prothorax, funicle as in preceding species except less robust and with several segments somewhat transverse. Prothorax about a fifth broader than long, broadest at middle, apex but slightly narrower than base, sides feebly arcuate, disk perceptibly arched when viewed laterally, coarsely discretely punctured, the equamose setæ arising from the punctures hardly projecting beyond their upper margins. Elytra oval, as broad as prothorax, disk arcuate as viewed laterally, declivity abrupt, setæ finely impressed, and finely, closely punctured, intervals flattened, each with a row of short, stiff, erect setæ. Abdomen sparsely squamose and pubescent. Legs moderately robust and clothed with scales and short, curved setæ. Length, 4.75 mm., breadth, 2.25 mm.

Holotype (No. 4137, Mus. C.A.S., Ent.) and seven paratypes, collected by me from oak, *Quercus garryana* Dougl., at Corvallis, Oregon, June 3, 1914. Several specimens from Klamath Falls, Oregon, collected July 9, 1934, and differing but little from the above, have been associated with the type set.

This species in size, shape and coloration much resembles the type species, *variegatus*, but can always be readily separated from that by the coarse pronotal punctures with the setæ short, squamose, and almost entirely enclosed within the punctures, in contrast to the small pronotal punctures and short but evidently exposed setæ of the other, as well as by the shorter and sparser elytral setæ. As I remember, the species was fairly common about Corvallis. It has long been known but generally confused with species in other genera particulary *Tricolepis simulator* Horn.

Genus Nemocestes Van Dyke, new name

Geoderces Horn, Proc. Am. Phil. Soc., XV (1876), pp. 70-71.

The genus *Geoderces* was established by George Horn in 1876, with *Trachyphlœus melanotrix* Kirby, designated as the genotype. Two species, *incomptus* Horn and what Horn took to be

melanotrix Kirby were placed in the genus. Unfortunately, Horn did not correctly identify Kirby's species, this being an entirely different weevil from what Horn believed. In 1932, I carefully examined Kirby's type of *Trachyphlœus melanotrix* which is preserved in the British Museum and is in good condition and found it to be none other than the well known and previously described *Phyxelis rigidus* (Say). To make doubly sure, I had Sir Guy Marshall, an acknowledged authority on the Rhynchophora, and Dr. K. G. Blair check my comparisons. A careful reading of Kirby's description will also show that it applies to *rigidus* and not to what Horn took it to be. That being the case, *incomptus* and what Horn considered as *melanotrix* are without a valid generic name and the latter also without a specific name. Much as I dislike to increase the synonomy, I feel that there is nothing else to do but to erect a new genus to replace *Geoderces* Horn and to give a specific name to Horn's (not Kirby's) *melanotrix*. The new name that I propose for the genus is *Nemocestes*, and it may be defined as follows:

Robust, afterbody subglobular, densely clothed with closely appressed scales and sparsely setose. Head stout; rostrum about as long as head, narrowed from in front of eyes to middle thence generally wider, feebly transversely impressed at base, moderately emarginate at apex, scrobes lateral, somewhat arcuate and directed towards but not reaching eyes; antennæ long, scape almost as long as funicle, reaching anterior margin of prothorax or beyond, funicle 7-segmented, first two segments moderately long, segments 3-7 elongate, obconical, gradually shorter, club elongate oval; eyes round, but moderately convex. Prothorax transverse, truncate at base and apex, with sides more or less arcuate and without postocular lobes or fimbriæ. Scutellum somewhat vertical, only visible when forebody is deflexed. Elytra oval or suboval, convex. Metasternum short, side pieces narrow, indistinct. Intercoxal process broad, truncate; second ventral segment separated from the first by a feebly arcuate suture. Tibiæ with very short mucro at tip, very minutely denticulate internally, and hind tibiæ with two short fixed spurs and cotyloid surface glabrous.

Genotype: *Nemocestes incomptus* (Horn).

As Horn states, this genus "has nothing at all resembling it outside of our fauna." The large subglobular, somewhat flattened afterbody gives the species a peculiar facies, enabling them in most cases, to be quickly determined. The genus is dominant along the Pacific Coast of North America, with a few

wide ranging species but most are extremely local. Only one, *horni* (*melanotrix* Horn—not Kirby) is to be found entirely outside of the Pacific fauna. A number of undescribed species are known, most of which will be described in this paper, but others will be left for a later day with the hope that more specimens will be secured to give a better idea of the species. Several of the species are of considerable economic importance, especially in strawberry fields.

KEY TO SPECIES

1. Larger species, 6 mm. or more in length.....2
... Smaller species, 5.5 mm. or less in length.....4
2. Antennal scape barely reaching back beyond front margin of prothorax; setæ of upper surface sparse, short, much inclined and somewhat curved .....*horni*
... Antennal scape reaching back well beyond front margin of prothorax; setæ of upper surface longer, at least one-half width of intervals, straight and more upright.....3
3. Setæ sparse, coarse and somewhat inclined; scaly vestiture variegated in color; afterbody quite globose.....*incomptus*
... Setæ dense, fine and vertical; scaly vestiture unicolorus brown; afterbody flattened above and somewhat straight and parallel at sides .....*longulus*
4. Prothorax widest near middle, pronotal punctures coarse; setæ moderately long, dense and suberect; color more or less uniform brown 5
... Prothorax widest behind middle, setæ rather short; color variable 6
5. Pronotal punctures numerous and close; elytra subelliptical, disk arcuate from base to apex; lighted markings vague..... *sordidus*
... Pronotal punctures coarse, moderately numerous but well spaced; elytra broad at humeri, with sides somewhat straight and feebly convergent backwards, disk flattened; distinct light markings near hind angles of prothorax and middle of femora ..... *montanus*
6. Pronotum coarsely, less closely, punctured; setæ fine and suberect; variegated color pattern, 4.5 mm. or less long; funcular segments 4-7 moniliform, about as broad as long; rostrum feebly expanded in front .....*puncticollis*
... Pronotum finely, rather closely punctured; setæ much inclined; 5 mm. or more long; funicular segments 4-5 longer than broad rostrum not perceptibly expanded apically.....7
7. Elytra with declivity arcuate and a prominent tubercle on fifth interval apically; first intervals with carinate callosities near scutellum; setæ rather short, fine and much inclined;

variegated color pattern ..... *tuberculatus*

... Elytra with declivity almost vertical and straight, apex of declivity overhanging; setæ short and closely appressed; color uniform brown ..... *koebeli*

NEMOCESTES INCOMPTUS (Horn)

This species is common and widely distributed along the Pacific Coast from British Columbia to middle California, ranging inland in the north generally as far as the Cascades, and more restricted to the immediate coast as it passes south. I have one specimen from Yellowstone Park. It varies in size from 6-9 mm., average 8 mm., and in color from gray through golden brown to dark brown. It may be irregularly maculated dark and light brown or more usually with the sides of the prothorax and sides and apex of elytra a lighter brown than the disk, the disk of the elytra being abruptly separated from the sides and apex by an irregular dark band. The setæ are quite variable as to length, robustness and color, likewise the basal segments of the antennal funicle are variable as to length, the second segment being always distinctly longer than the first. In this connection I will state that Horn was absolutely wrong in giving the "second joint shorter than the first." Mr. E. T. Cresson, Jr., has very carefully measured the segments of the type and paratype specimens in the Horn collection for me, and in all cases found the second segment the longer. I have examined hundreds of specimens including large numbers collected by me as well as big series submitted by Mr. J. Wilcox of Puyallup, Washington. At certain times of the year, the specimens become coated with mud.

Nemocestes **horni** Van Dyke, new name

This species, as stated previously, is the *Geoderces melanotrix* Horn but not the *Trachyphlœus melanotrix* Kirby as believed by Horn. The characters separating this species from the preceding are very feeble. I believe that it is but a subspecies at most of *incomptus*, but until we get larger series of specimens, especially from intermediate territory, will leave it as placed. My specimens are from Michigan. It has also been found in Canada and New York.

Nemocestes longulus Van Dyke, new species

Rather large and robust, somewhat elongate, piceous or reddish brown, densely clothed with closely appressed dark brown or golden brown scales except for a few lighter ones above the eyes, at sides of pronotum behind, and in a band at middle of femora, the upper surface also rather densely pilose, the hair fully as long as one-half the breadth of intervals, dark and upright. Head flattened above, interocular area broad; rostrum slightly longer than head, broad, in general feebly narrowed forward but with alæ expanded, antennal scape reaching back behind front margin of prothorax, second segment of funicle long and distinctly longer than first, the following much shorter, gradually broader but all longer than broad. Prothorax about a sixth broader than long, widest behind middle, gradually narrowed in front and rounded to base, disk rather coarsely and densely punctured. Elytra subelliptical, slightly less than twice as wide as prothorax, over one-fourth longer than broad, with sides more or less straight and parallel, disk somewhat flattened, striæ well defined and strial punctures distinct and closely placed, intervals flattened or feebly convex behind. Abdomen rather coarsely, irregularly punctured. Length, 6.5 mm., breadth, 3 mm.

Holotype (No. 4138, Mus. C.A.S., Ent.) and several designated paratypes from a series of over sixty specimens. These were taken at Saticoy, Ventura County, California, the type in June, 1924, others July 30, 1924, May 22, 1924, and so forth, and mostly by Mr. Stanley Flanders. Some were found feeding in strawberry patches.

This species is almost as large as the average *incomptus*, our largest species, but proportionally narrower and more elongate, of a more uniform color and with pile far more dense and erect.

Nemocestes sordidus Van Dyke, new species

Of moderate size, robust, piceous, antennæ and tarsi rufous, densely clothed with piceous or earthen colored scales with a few silvery scales at sides of prothorax near base, over eyes and at middle of femora, and moderately setose, the setæ one-half breadth of intervals, black and suberect. Head flattened above, interocular area broad; rostrum slightly longer than head, feebly narrowed forward, both head and rostrum rather coarsely punctured; antennal scape reaching back of front margin of prothorax, second funicular segment elongate, the following longer than broad and gradually broader. Prothorax barely broader than long, widest at middle, sides rather evenly arcuate, disk coarsely, moderately densely punctured. Elytra well rounded at humeri and apex,

feebly arcuate at sides, disk moderately convex, declivity well rounded, somewhat straight near apex, striæ well impressed and with moderate, somewhat closely placed punctures, intervals flat. Abdomen with punctures concealed by scales. Length, 5.5 mm., breadth, 2.5 mm.

Holotype (No. 4139, Mus. C.A.S., Ent.) and numerous designated paratypes from a series of thirty-four specimens, all collected near San Jose, California. The type is from a series taken August 1, 1931, others on various dates in June. Dr. L. M. Smith furnished most of the specimens which were taken in strawberry patches where they were doing considerable injury. A small series of slightly smaller individuals from Niles, California, July 20, 1921, and others collected by Albert Koebele, labeled Alameda County, California, I have associated with the preceding lot.

This species in color and general facies somewhat resembles *longulus*, but it is much smaller, less elongate, with the prothorax more evenly arcuate at sides and less narrowed forwards, the pronotum more coarsely and sparsely punctured and the sides of the elytra less parallel.

Nemocestes montanus Van Dyke, new species

In size and color similar to preceding but the setæ are shorter, sparser and more inclined. The head is more irregularly, sparsely punctured above, the rostrum more quadrate with sides parallel, eyes more convex and prominent, and the occipital region clothed with silvery scales which become quite noticeable when the head is flexed. The prothorax is about one-sixth broader than long, somewhat narrowed in front, disk coarsely, somewhat distinctly punctured. Elytra broad at humeri, with sides almost straight and parallel and apex well rounded, disk flattened, striæ finely impressed and moderately finely, closely punctured, the intervals flat. Abdomen coarsely, sparsely punctured in front. Length, 5 mm., breadth, 2.5 mm.

Holotype (No. 4140, Mus. C.A.S., Ent.) collected by myself at Fallen Leaf Lake, Lake Tahoe, California, June 23, 1915; paratype, also collected by me, at Carrville, Trinity County, California, June 31, 1913. Other specimens seen are: one from Tallac, California, July 17, 1915, two from Riverton, California, July 8, 1935, and one from Pacific House, El Dorado County, California, July 7, 1931, all in collection of E. C. Zimmerman; one

reared from roots of *Ribes* at Baxter, Placer County, California, by H. H. Kiefer; and a small series submitted by J. Wilcox and William W. Baker and collected at various places in western Washington such as: Spanway, September 15, 1933, Oak Point, October 11, 1933, Cle Elum, May 7, 1933, Easton, April 9, 1933, and Loveland, April 1, 1932. A series of mostly immature specimens taken from strawberries by J. Wilcox near Albany, Oregon, July 12, 1929, has also been tentatively placed with this species.

The quadrate rostrum, somewhat prominent eyes, coarse and well-spaced pronotal punctures, and straight sides and more or less flattened disk of elytra will generally define this species. The silvery scales of the occiput are also very noticeable in this species. Immature specimens are variegated in color but fully matured ones are characteristically dark brown.

NEMOCESTES PUNCTICOLLIS (Casey)

This species is much the smallest of the genus, and is readily separated from the others not only by its size but by the peculiarities of its funicular segments. It is, however, very similar in general appearance to the much more common *Geodercodes latipennis* Csy. and being found in the same locality, Monterey Bay and vicinity, is very apt to be mistaken for it.

Nemocestes tuberculatus Van Dyke, new species

Moderate in size, robust, reddish brown, densely clothed with golden brown scales mixed with patches of darker brown and cinerous scales and with setæ short, sparse, light in color and much inclined on the elytra. Head somewhat flattened above and coarsely, sparsely punctured; rostrum longer than head, narrowed forwards, feebly sulcate above and with a vague median carina; eyes moderately prominent; antennæ rufous with scape reaching behind front margin of prothorax. Prothorax fully a sixth wider than long, widest back of middle, gradually narrowed in front, disk distinctly yet moderately finely and somewhat abundantly punctured. Elytra almost a third longer than broad, with sides almost straight and divergent from base to humeri where widest, thence almost straight and feebly convergent backwards to sides of declivity where are situated the blunt tubercles, feebly sinuate within these and rounded to apex; disk moderately convex; striæ finely impressed and with fine, closely placed punctures, the intervals flattened in front, feebly convex behind, the sutural with an

elongate callosity in front near scutellum and the fifth with a blunt tubercle near summit of apical declivity. Beneath more sparsely squamose than usual, finely pilose and sparsely punctured. Length, 5 mm., breadth, 2.5 mm.

Holotype (No. 4141, Mus. C.A.S., Ent.) and numerous designated paratypes from a series of twenty-four specimens collected by me from beneath the old dead leaves of the redwood (*Sequoia sempervirens* Endl.) in Muir Woods, Marin County, California, August 30, 1909. There is also a large series in the Blaisdell collection taken at the same time and place, and two specimens collected by J. O. Martin, near Taylorville, Marin County, California, December 28, 1919.

This species is one of the most distinct in the genus, the light variegated color pattern, smooth parascutellar callosities, and apical tubercles readily defining it.

Nemocestes koebeli Van Dyke, new species

Of moderate size, unicolorous brown, densely clothed with closely appressed scales as usual and with short setæ, numerous and much inclined, hardly raised above the scaly vestiture. Head flattened above; sparsely punctured, rostrum longer than head, somewhat narrowed forward, eyes feebly convex, scape of antennæ reaching well back of front margin of prothorax. Prothorax over one-sixth broader than long, widest back of middle, gradually narrowed in front and transversely impressed before apex, disk rather finely, closely punctured, setæ short and much inclined. Elytra broadly rounded at humeri, sides almost straight to posterior third, thence rounded and feebly arcuate and rapidly convergent to apex; disk quite feebly arcuate in profile, summit of declivity overhanging, the declivity in profile almost straight and inclining forward to apex, striæ finely impressed and finely, closely punctured, intervals feebly convex at sides and apex, setæ, short, numerous and much inclined, projecting but little above the scaly vestiture, except on declivity. Beneath sparsely squamose, finely, sparsely pubescent, and but moderately punctate. Length, 5 mm., breadth, 2.5 mm.

Holotype (No. 4142, Mus. C.A.S., Ent.) and one paratype, collected by Albert Koebele in the Santa Cruz Mountains, California.

The outstanding characters of this species are its fine pronotal punctures, very short and closely appressed setæ and the odd shaped afterbody with the summit of the declivity extended well back of the sutural apex and the declivity itself straight and passing forwards.

Aragnomus setosus Van Dyke, new species

Moderately robust, densely clothed with closely appressed cinereous and brown scales, the latter massed on the front of head, median area of pronotum and disk of elytra, the head and pronotum also with numerous short, forward projecting setæ and the elytra with rows of long, erect, hair-like setæ. Head robust, sides straight and convergent forward, front continuous with rostrum without transverse impression, the rostrum, therefore, not sharply delimited, not dilated in front, a small fovea between the eyes, the eyes large but almost flat, scrobes dorsal, short, elliptical, directed toward eyes but well separated from them; antennæ rather long, scape arcuate, about reaching front margin of prothorax. Prothorax transverse, subcylindrical, one-third broader than long, two-thirds as long as head and rostrum, the broad diskal stripe often divided down the middle by a white line. Elytra elliptical, about a third longer than broad and two-fifths broader than prothorax, the declivity gradually rounded off, not abrupt, striæ finely impressed, intervals flat or feebly convex at sides and apex, and each with a single or occasionally a double row of rather long, erect, hair-like setæ. Legs robust. Beneath with numerous short, hook-like setæ in addition to the scaly vestiture. Length, 5.5 mm., breadth, 2.5 mm.

Holotype (No. 4143, Mus. C.A.S., Ent.) and numerous designated paratypes from a series of 47 specimens beaten by me from manzanita (*Arctostaphylos*) bushes on the hills near Columbia, Tuolumne County, California, June 4, 1931.

This species is much less robust than *griseus*, head more definitely cuneate, prothorax shorter, elytra less dilated and with declivity evenly arcuate, not abrupt, and the elytral setæ rather long and erect, not short and squamose. From *hispidulus* Csy., it differs by the rostrum not being dilated at apex, not impressed at base, the scape not extending beyond front margin of prothorax, the prothorax much shorter than head and rostrum together, the elytra not inflated and declivous at apex, and with rows of long setæ, not long scales, on the intervals. The color is variable, some specimens being almost uniformly gray, others with the elytral disk bounded by an irregular dark brown line, the diskal area itself but little darker than the rest of the insect.

The range of *Aragnomus griseus* Horn is mainly in the Great Basin, Nevada, western Colorado, northern Arizona. The type locality California must have referred to the arid area east of the Sierra Nevada mountains.

Genus ENCYLLUS Horn

KEY TO SPECIES

1. Larger species, 5.5-7.5 mm. in length, bicolored, second funicular segment from 3 to 4 times as long as broad, setæ of entire upper surface hispid, many times as long as broad and acute at apices ..... *vagans*
... Smaller species, 5 mm. or less in length, second funicular segment but little more than twice as long as broad, setæ of upper surface very short and robust, squamose or club-like and blunt at apices 2
2. Bicolored, three brown stripes on pronotum and numerous brown patch on elytra, erect setæ of upper surface club-like, several times as long as broad ..... *echinus*
... Unicolored, cinereous, erect setæ of upper surface peg-like or tubercular, but little longer than broad ..... *unicolor*

Eucyllus echinus Van Dyke, new species

Rather small, moderately robust and elongate, rufopiceous and densely clothed with gray and brown, closely appressed scales, the former generally distributed, the latter forming a median and two lateral stripes on the pronotum, a median diskal patch, an irregular zigzag line along the sides and a larger irregular V-like patch at the summit of the declivity of the elytra, and the entire upper surface studded with short, club-like setæ, several times as long as broad, irregularly placed on the head and pronotum but more or less arranged in single or irregular double rows along the intervals of the elytra. Head with front broad and flattened; rostrum about as long as head and not distinctly separated from the latter by a constriction, gradually narrowed forwards and broadly, shallowly sulcate above; eyes rather small and feebly convex; scrobes distinct, dilated behind and reaching eyes as in type species, antennæ moderately robust, scape feebly arcuate, reaching front margin of prothorax, first funicular segment robust, a bit more than twice as long as broad, second slightly longer and narrower, the following gradually shorter and broader, club oval. Prothorax hardly a third broader than long, base broadly arcuate, sides well rounded, apex feebly emarginate, disk distinctly but sparsely punctured with the setæ arising from them. Elytra subelliptical, over a third longer than broad and about a fourth broader than prothorax, striæ finely impressed with small, well spaced punctures, intervals convex, declivity abrupt but well rounded. Beneath with setæ more squamose and inclined. Length, 5 mm., width, 2.25 mm.

Holotype (No. 4144, Mus. C.A.S., Ent.) a unique, collected at Cave Creek, Maricopa County, Arizona, May, 1910, by J. I. Carlson.

This species looks superficially like a diminutive *vagans*. It differs materially, though, by having the funicle less twisted, the second funicular segment proportionally much shorter than in that species, the prothorax more broadly rounded at sides and the setæ denser, shorter, broader, and blunt.

Eucyllus unicolor Van Dyke, new species

Slightly less robust, but otherwise similar in shape to the preceding, the scaly vestiture of a uniform ashen color while the setæ are short stubs or tubercles, hardly longer than broad. The head characters are also similar except that the scrobes are wider and the antennæ a bit more robust, the scape in particular, which also reaches beyond the front margin of prothorax. The prothorax has the sides less broadly rounded while the elytra are narrower with the striæ deeper and with closer punctures. Length, 5.25 mm., breadth, 2.25 mm.

Holotype (No. 4145, Mus. C.A.S., Ent.) and one paratype. The first was collected in Utah in 1921, by C. A. Duncan, the paratype, slightly smaller, in the collection of E. C. Zimmerman, was collected by him at Westguard, California, September 3, 1931.

The color and type of setæ will enable this species to be readily separated.

Pioneer Entomologists

Two of our pioneer entomologists and great teachers of entomology celebrate their eightieth anniversaries this spring, Lawrence Bruner on March 2d, and Herbert Osborn on March 17th. The former, now living in Berkeley, won his spurs in the Great West, being Professor at the University of Nebraska; the latter now in Florida, being Professor of Entomology, first at Iowa, later at the Ohio State University.